

each procedure. In order to pass the spot check, the test results must pass both the following two criteria using the average test result for each procedure:

(A) The NO_x emission results of the simulation test must be at least 85% of the NO_x emission results of the environmental chamber test.

(B) The fuel consumption of the simulation test must be at least 95% of the fuel consumption of the environmental chamber test.

(iv) If the spot check criteria have not passed after any of the initial test, the first retest, or the second retest the spot check is considered failed.

(d) *Consequences of failing a spot check.* (1) If the emission results of the testing using the environmental test chamber passes all the applicable standards, those test results may be used to obtain a certificate of conformity.

(2) The Administrator will allow up to 60 days for the manufacturer to supply additional data addressing the correlation of the simulation with a full environmental test cell.

(i) If that data prove to the satisfaction of the Administrator that the simulation produces results that correlate sufficiently with the environmental test chamber, the Administrator may allow the continued use of the simulation.

(ii) Otherwise, the Administrator will determine that the simulation fails to meet adequate correlation levels with full environmental testing. As a consequence of this finding, all future air conditioning emission testing on the population of vehicles represented by the failing-spot-check test vehicle (which may include past model year configurations) will be conducted using an environment chamber or a different (or corrected) approved simulation procedure.

(iii) For each vehicle that fails a spot check, the Administrator may select up to two additional vehicles to test for the spot check that do not count against the five vehicle limit of paragraph (a) of this section.

(e) EPA will monitor the aggregate results of spot check testing and full environmental test cells. If EPA determines, based on such aggregate results,

that any simulation (other than the AC1 and AC2 procedures described in paragraphs (b) and (c) of this section for the 2000, 2001, and 2002 model years) is producing test results consistently below those from a full environmental test cell, EPA may review its approval of the simulation.

[61 FR 54899, Oct. 22, 1996]

§ 86.164-00 Supplemental Federal Test Procedure calculations.

(a) The provisions of § 86.144-94 (b) and (c) are applicable to this section except that the NO_x humidity correction factor of § 86.144-94(c)(7)(iv) must be modified when adjusting SC03 environmental test cell NO_x results to 100 grains of water (see paragraph (d) of this section). These provisions provide the procedures for calculating mass emission results of each regulated exhaust pollutant for the test schedules of FTP, US06, and SC03.

(b) The provisions of § 86.144-94(a) are applicable to this section. These provisions provide the procedures for determining the weighted mass emissions for the FTP test schedule (Y_{wm}).

(c)(1) When the test vehicle is equipped with air conditioning, the final reported test results for the SFTP composite (NMHC+NO_x) and optional composite CO standards shall be computed by the following formulas.

$$(i) Y_{WSFTP} = 0.35(Y_{FTP}) + 0.37(Y_{SC03}) + 0.28(Y_{US06})$$

Where:

(A) Y_{WSFTP} =Mass emissions per mile for a particular pollutant weighted in terms of the contributions from the FTP, SC03, and US06 schedules. Values of Y_{WSFTP} are obtained for each of the exhaust emissions of NMHC, NO_x, and CO.

(B) Y_{FTP} =Weighted mass emissions per mile (Y_{wm}) based on the measured driving distance of the FTP test schedule.

(C) Y_{SC03} =Calculated mass emissions per mile based on the measured driving distance of the SC03 test schedule.

(D) Y_{US06} =Calculated mass emissions per mile based on the measured driving distance of the US06 test schedule.

$$(ii) \text{ Composite (NMHC+NO}_x\text{)} = Y_{WSFTP}(\text{NMHC}) + W_{SFTP}(\text{NO}_x)$$

Where:

(A) $Y_{WSFTP}(NMHC)$ =results of paragraph (c)(1)(i) of this section for NMHC.

(B) $Y_{WSFTP}(NO_x)$ =results of paragraph (c)(1)(i) of this section for NO_x .

(2) When the test vehicle is not equipped with air conditioning, the relationship of paragraph (c)(1)(i) of this section is:

$$(i) Y_{WSFTP} = 0.72(Y_{FTP}) + 0.28(Y_{US06})$$

Where:

(A) Y_{WSFTP} =Mass emissions per mile for a particular pollutant weighted in terms of the contributions from the FTP and US06 schedules. Values of Y_{WSFTP} are obtained for each of the exhaust emissions of NMHC, NO_x , and CO.

(B) Y_{FTP} =Weighted mass emissions per mile (Y_{wm}) based on the measured driving distance of the FTP test schedule.

(C) Y_{US06} =Calculated mass emissions per mile based on the measured driving distance of the US06 test schedule.

(ii) Composite (NMHC+ NO_x) = $Y_{WSFTP}(NMHC) + Y_{WSFTP}(NO_x)$

Where:

(A) $Y_{WSFTP}(NMHC)$ =results of paragraph (c)(2)(i) of this section for NMHC.

(B) $Y_{WSFTP}(NO_x)$ =results of paragraph (c)(2)(i) of this section for NO_x .

(d) The NO_x humidity correction factor for adjusting NO_x test results to the environmental test cell air conditioning ambient condition of 100 grains of water/pound of dry air is:

$$K_H(100) = 0.8825/[1 - 0.0047(H - 75)]$$

Where:

H=measured test humidity in grains of water/pound of dry air.

[61 FR 54900, Oct. 22, 1996, as amended at 70 FR 40434, July 13, 2005]

§ 86.164-08 Supplemental Federal Test Procedure calculations.

(a) The provisions of § 86.144-94 (b) and (c) are applicable to this section except that the NO_x humidity correction factor of § 86.144-94(c)(7)(iv) must be modified when adjusting SC03 environmental test cell NO_x results to 100 grains of water according to paragraph (d) of this section. These provisions provide the procedures for calculating mass emission results of each regulated exhaust pollutant for the test schedules of FTP, US06, and SC03.

(b) The provisions of § 86.144-94(a) are applicable to this section. These provisions provide the procedures for determining the weighted mass emissions for the FTP test schedule (Y_{wm}).

(c)(1) When the test vehicle is equipped with air conditioning, the final reported test results for the SFTP composite (NMHC+ NO_x) and optional composite CO standards shall be computed by the following formulas.

$$(i) Y_{WSFTP} = 0.35(Y_{FTP}) + 0.37(Y_{SC03}) + 0.28(Y_{US06})$$

Where:

(A) Y_{WSFTP} = Mass emissions per mile for a particular pollutant weighted in terms of the contributions from the FTP, SC03, and US06 schedules. Values of Y_{WSFTP} are obtained for each of the exhaust emissions of NMHC, NO_x and CO.

(B) Y_{FTP} = Weighted mass emissions per mile (Y_{wm}) based on the measured driving distance of the FTP test schedule.

(C) Y_{SC03} = Calculated mass emissions per mile based on the measured driving distance of the SC03 test schedule.

(D)(I) Y_{US06} = Calculated mass emissions per mile based on the measured driving distance of the US06 test schedule; or,

(2) In the case of a 2-phase US06 test run according to the provisions of § 86.159-08(f)(2) and part 600 of this chapter:

Y_{US06} = Calculated mass emissions per mile, using the summed mass emissions of the "US06 City" phase and the "US06 Highway" phase, based on the measured driving distance of the US06 test schedule. The "US06 City" phase shall be sampled during seconds 0-130 and from 495 seconds until five seconds after the engine stops running (e.g. 602 or 603 seconds) of the US06 driving schedule. The "US06 Highway" phase shall be sampled during seconds 130-495 of the US06 driving schedule).

(ii) Composite (NMHC+ NO_x) = $Y_{WSFTP}(NMHC) + Y_{WSFTP}(NO_x)$

Where:

(A) $Y_{WSFTP}(NMHC)$ = results of paragraph (c)(1)(i) of this section for NMHC.

(B) $Y_{WSFTP}(NO_x)$ = results of paragraph (c)(1)(i) of this section for NO_x .

(2) When the test vehicle is not equipped with air conditioning, the final reported test results for the SFTP